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Continuous assessment and legal education: how might a programme-level continuous assessment strategy be implemented and how might it affect student motivation?

Edward Mitchell

Essex Law School, University of Essex, Colchester, UK

ABSTRACT

Student motivation is an important issue in legal education and directly relates to student confidence, performance and persistence. Research into the efficacy of continuous assessment in higher education has shown that continuous assessment can foster greater student motivation and enjoyment. However, this research has tended to examine continuous assessment strategies for individual modules. By contrast, Essex Law School implemented a continuous assessment strategy involving a programme of assessed online multiple-choice quizzes that was adopted for most of the School's undergraduate law modules. This paper draws on self-determination theory to show how this continuous assessment strategy had positive effects on perceived competence among undergraduate law students and helped them feel both in control of their learning experience and better equipped to make positive choices about that experience. This study thus suggests that programme-level continuous assessment can be used effectively to address motivation, engagement and wellbeing challenges in legal education.

Introduction

Student motivation and wellbeing are mainstays of research into legal education. Research has shown that law students generally begin their degree programmes with a healthy outlook but that an unusually high proportion of these students experience declining motivation, happiness and wellbeing as they progress through their degrees.[1] This trend towards amotivation and disengagement suggests that law schools should

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[1]Kennon M Sheldon and Lawrence S Krieger, "Does Legal Education Have Undermining Effects on Law Students? Evaluating Changes in Motivation, Values, and Well-Being" (2004) 22 Behavioral Sciences and the Law 261.

utilise teaching, learning and assessment methods specifically designed to promote confidence, independence and persistence.[2] This paper evaluates a continuous assessment strategy designed and implemented in the University of Essex Law School in the 2020–21 academic year both to address pre-existing motivation, wellbeing and engagement deficits and in the expectation that the Covid-19 pandemic would have a negative impact upon student mental health and wellbeing.

Essex Law School's continuous assessment strategy involved a programme of regular, assessed online multiple-choice quizzes (MCQs) for students enrolled on the School's undergraduate modules. These modules had cohorts of between 25 and 510 students. Research into the efficacy of continuous assessment has tended to focus on continuous assessment regimes for individual modules[3] so this paper offers a novel perspective by evaluating a continuous assessment strategy adopted uniformly across a wide range of modules. To do this, this paper draws on self-determination theory[4] to ask how the MCQs programme might have had a positive or negative impact upon both students' sense of control over their studies and their self-perception of their identity as learners. The paper's first section explains how self-determination theory enables the study of human motivation and elaborates on longstanding issues in legal education related to motivation, wellbeing and engagement. It next examines research into continuous assessment to evaluate the outcomes that a continuous assessment strategy can produce. The second section then describes Essex Law School's MCQs programme and the third section explains the methods used to evaluate it. The fourth section presents the research results and shows that the MCQs programme enabled some students to develop a greater sense of mastery over the subjects they studied. The paper concludes by noting the lessons learnt and evaluating the wider potential for programme-level continuous assessment strategies in legal education.

Self-determination theory, continuous assessment and legal education

Self-determination theory (SDT) suggests that humans have three basic psychological needs. The need for "competence" involves the individual's capacity to engage in and master challenges suited to their interests and abilities, the need for "autonomy" concerns the individual's capacity to regulate and direct their behaviours free from extrinsic controls, and the need for "relatedness" reflects the human craving both for belongingness and to care about and to be cared for by others.[5] SDT indicates that, in an education setting, psychological need satisfaction can lead to greater engagement in learning activities, positive emotions, sustained high performance and increased mastery.[6]

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[2]Emma Jones and Caroline Strevens, "Legal Education for Wellbeing: Design, Delivery and Evaluation" (2022) 56 The Law Teacher 1; Rachael Field and Jan HF Meyer, "Threshold Concepts in Law: Intentional Curriculum Reform to Support Law Student Learning Success and Well-Being" in Emma Jones and Fiona Cownie (eds), *Key Directions in Legal Education: National and International Perspectives* (Routledge 2020) 142–57.

[3]Greg Allen, "The Use of Multiple-Choice Questions as a Form of Formative Assessment on an Undergraduate Law Module" (2008) 42 The Law Teacher 180; Naomi Holmes, "Student Perceptions of Their Learning and Engagement in Response to the Use of a Continuous e-Assessment in an Undergraduate Module" (2015) 40 Assessment & Evaluation in Higher Education 1; Sean Whittaker and Tarik Olcay, "Multiple-choice Questionnaire Assessments: Do They Have a Role in Assessing Law Students?" (2022) 56 The Law Teacher 335.

[4]Edward L Deci and Richard M Ryan, *Intrinsic Motivation and Self-Determination in Human Behavior* (Plenum Press 1985); Richard M Ryan and Edward L Deci, *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness* (The Guilford Press 2017).

[5]Ryan and Deci (n 4) 10–11.

[6]Richard M Ryan and Edward L Deci, "Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions" (2000) 25 Contemporary Educational Psychology 54.

SDT proposes a taxonomy of human motivation to facilitate the examination of human behaviour and the pursuit of psychological need satisfaction. Where individuals spontaneously and autonomously initiate an activity that they find inherently interesting, their behaviour is, according to SDT, intrinsically motivated and they are likely to achieve psychological need satisfaction from that activity.[7] However, SDT acknowledges that individuals rarely initiate an activity both spontaneously and because they find it inherently interesting.[8] Instead, SDT posits that most activities are catalysed by some form of extrinsic motivation. SDT conceptualises extrinsic motivation using a four-point continuum.[9] At one end of this continuum is "external regulation" where an individual performs an activity only to obtain an external reward or to avoid an external threat. Controlling an individual's behaviour in this way may, however, undermine their psychological wellbeing and may not lead to significant enhancements in their personal competencies.[10] An individual who predominantly experiences their behaviour as controlled or coerced will also be unlikely to persist at an activity if the external consequence is removed.[11] Moreover, a person might commence an activity because of its intrinsically motivating factors but come to find that the relative strength of those factors diminishes if the ongoing performance of that activity is conducted primarily to gain an external reward or to address an external threat.[12]

The next point in the SDT extrinsic motivation continuum is "introjection". This occurs when an individual commences an activity partly to obtain or avoid an external consequence but also because of an "internalised" desire either to avoid feelings of shame and guilt that would flow from non-engagement, or to seek approval for and boost self-esteem from completing the activity.[13] Introjected extrinsic motivation may prompt greater persistence at an activity than external regulation but is also likely to trigger performance-related vulnerabilities such as anxiety or the inability to cope with failure.[14]

After externally regulated and introjected extrinsic motivation, "identification" and "integration" are the next points on the SDT extrinsic motivation continuum. Identification arises when an individual recognises the values underpinning an activity and attaches personal importance to it.[15] Ryan and Deci offer the example of a child who memorises spelling lists because they view good spelling as a component of effective writing, and effective writing as an essential personal attribute.[16] The child has not commenced this activity spontaneously but has internalised the principles

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[7]ibid 56–59.
[8]ibid 60.
[9]Ryan and Deci (n 4) 193.
[10]Rubén Trigueros and others, "The Dark Side of the Self-Determination Theory and Its Influence on the Emotional and Cognitive Processes of Students in Physical Education" (2019) 16 International Journal of Environmental Research and Public Health 4444; Kennon M Sheldon and Lawrence S Krieger, "Understanding the Negative Effects of Legal Education on Law Students: A Longitudinal Test of Self-Determination Theory" (2007) 33 Personality and Social Psychology Bulletin 883, 893.
[11]Ryan and Deci (n 4) 184–85.
[12]Ryan and Deci (n 6) 63.
[13]Ryan and Deci (n 4) 185–86.
[14]ibid 186.
[15]ibid 187.
[16]Ryan and Deci (n 6) 62. See also Caroline Strevens, "The Wrong Message: Law Student Well-Being in the Contemporary Higher Education Environment" in Emma Jones and Fiona Cownie (eds), *Key Directions in Legal Education: National and International Perspectives* (Routledge 2020) 125–41, 128.

underpinning it by recognising and assimilating its developmental potential. Ryan and Deci propose, therefore, that this type of extrinsically motivated behaviour will usually be maintained and generate positive outcomes.[17] Integration, on the other hand, will occur when an individual starts an activity for its instrumental value, but the extrinsically motivated behaviour underpinning the activity then becomes volitional and self-regulated.[18] This type of extrinsically motivated behaviour is most likely, Ryan and Deci explain, to lead to psychological need satisfaction and positive wellbeing, persistence and better performance.[19]

In an education setting, SDT thus emphasises the importance of learning activities suited to student competencies and of encouraging students to self-identify the personal importance of the activities or to assimilate the values underpinning the activities as their own.[20] This identification and integration process is, Ryan and Deci suggest, "developmentally important" because values internalised in one situational context may come to affect a person's global dispositions.[21] This can, however, have a negative connotation. In a higher education context, Sheldon and Krieger tentatively speculate that adverse experiences while studying (they cite "disappointing grades, humiliating classroom episodes, or frustrating interactions with faculty" as typical examples) may undermine a student's motivation and wellbeing with respect to their studies to such an extent that they then suffer longer-term personality changes.[22]

Research into legal education has suggested that law students often experience worsening psychological need satisfaction and wellbeing and motivation deficits as they progress through their degree courses.[23] Sheldon and Krieger and Field and Meyer summarise the pedagogic research into this issue.[24] They highlight research that pinpoints the predominance of abstract, complex and theoretical content in legal education, heavy workloads, and a competitive student culture as possible causes of reduced motivation and wellbeing among students. They also note that some studies suggest that motivation and wellbeing deficits might result from feedback mechanisms that fail to provide useful learning opportunities, intimidating teaching practices that valorise extrovert behaviours, and a tendency among law students to take an instrumental approach to learning by valuing grades above knowledge gained.[25] To address the lack of psychological need satisfaction and the amotivation that these problems can cause, law schools might design learning activities specifically to help law students deal with challenging and potentially "alien" concepts,[26] focus more purposefully on developing students' academic skills and guiding them through their learning experience,[27] and promote regular active engagement among students both inside and outside the classroom.[28]

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[17]Ryan and Deci (n 6) 63–64.
[18]ibid 62.
[19]ibid 63–64.
[20]ibid 64.
[21]ibid 62. See also Sheldon and Krieger (n 10) 893–94.
[22]Sheldon and Krieger (n 10) 894.
[23]Sheldon and Krieger (n 1) 280–82; Sheldon and Krieger (n 10) 889.
[24]Sheldon and Krieger (n 1) 262; Field and Meyer (n 2) 144–45.
[25]Sheldon and Krieger (n 1) 262; Field and Meyer (n 2) 145. See also Rachel Spencer, "'Hell Is Other People': Rethinking the Socratic Method for Quiet Law Students" (2022) 56 The Law Teacher 90 and Stella Coyle and Hannah Gibbons-Jones, "'Make Glorious Mistakes!' Fostering Growth and Wellbeing in HE Transition" (2022) 56 The Law Teacher 37.
[26]Field and Meyer (n 2).
[27]ibid; Sheldon and Krieger (n 10) 894–95.
[28]Coyle and Gibbons-Jones (n 25); Spencer (n 25).

This paper argues that carefully designed continuous assessment activities can also promote greater psychological need satisfaction among law students by helping them to feel less threatened by the overall learning process. For this paper's purposes, continuous assessment involves the assessment of student activities over a learning unit and the accumulation of results that contribute to a final grade.[29] Continuous assessment can help students "structure" their learning experience by prompting them both to engage with course materials and learning activities on a regular basis and to attend more teaching events.[30] If it is well aligned to lectures, tutorial tasks and readings, continuous assessment can give students opportunities to learn from mistakes and receive prompt, regular and useful formative feedback on learning during the learning process.[31] Continuous assessment can also help students develop key skills such as the ability to find and apply information during the learning process, make links between a course's different components[32] and create cognitive structures in which learnt material can subsequently be used.[33] In the context of continuous assessment hosted through a virtual learning environment (VLE), continuous assessment activities can initiate more engagement with the VLE.[34] While students might not participate in continuous assessment activities voluntarily, these strategies can also have positive effects on students' perceived "control" over their learning experience if they can complete their continuous assessment activities outside the classroom at a time and a place that they choose.[35] MCQs-based continuous assessment can test students on more course content than would be possible in assessment types with a narrower focus,[36] and can help students close gaps in their understanding during the learning process.[37]

On the other hand, there are potentially negative effects on student learning that might arise from continuous assessment. For example, Harland and others have shown how a fragmentary and unsystematic approach to continuous assessment in a higher education institution created a stressful learning environment for students.[38] In addition, students may resist continuous assessment activities involving trivial tasks primarily designed to encourage particular behaviours.[39] Activities that are too straightforward may also contribute little to the overall learning experience,[40] whereas

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[29]This definition draws on that utilised in Allen H Miller, Bradford W Imrie and Kevin Cox, *Student Assessment in Higher Education: A Handbook for Assessing Performance* (Kogan Paul 1998), as quoted in Holmes (n 3) 2.

[30]Andrew Hemming, "Online Tests and Exams: Lower Standards or Improved Learning?" (2010) 44 The Law Teacher 283; Holmes (n 3); Félix E Mezzanotte, "Use of 'Reading Quizzes' to Foster Learning: Evidence from Teaching Company Law in Business Programmes" (2017) 51 The Law Teacher 349.

[31]Allen (n 3); Holmes (n 3); Eileen Trotter, "Student Perceptions of Continuous Summative Assessment" (2006) 31 Assessment & Evaluation in Higher Education 505; Stephen W Draper, "Catalytic Assessment: Understanding How MCQs and EVS Can Foster Deep Learning" (2009) 40 British Journal of Educational Technology 285, 286.

[32]Draper (n 31) 287.

[33]Mezzanotte (n 30) 358.

[34]Naomi Holmes, "Engaging with Assessment: Increasing Student Engagement through Continuous Assessment" (2018) 19 Active Learning in Higher Education 23.

[35]Holmes (n 3) 9.

[36]Whittaker and Olcay (n 3) 350.

[37]David Nicol, "E-assessment by Design: Using Multiple-Choice Tests to Good Effect" (2007) 31 Journal of Further and Higher Education 53, 59; Allen (n 3) 188–89.

[38]Tony Harland and others, "An Assessment Arms Race and Its Fallout: High-Stakes Grading and the Case for Slow Scholarship" (2015) 40 Assessment & Evaluation in Higher Education 528. See also Rosario Hernández, "Does Continuous Assessment in Higher Education Support Student Learning?" (2012) 64 Higher Education 489.

[39]Harland and others (n 38) 535.

[40]A risk that Allen (n 3) 182 identifies when discussing research examining MCQs.

activities that test students too frequently may reduce opportunities for higher order cognitive development.[41] Poorly designed MCQs might particularly encourage surface-level learning.[42] Academic staff and professional services teams who design, implement and administer continuous assessment can also face challenges from the upfront investment of time and expertise required to prepare the activities and process the results.[43] Nonetheless, to mitigate these resourcing challenges, automated feedback and grading systems for online continuous assessment and the repeatable and transferable nature of the resources and skills utilised in designing and implementing the activities might reduce workload for academic and professional services staff in the longer-term.[44] Moreover, while there are challenges inherent to continuous assessment, carefully designed strategies can enhance student motivation, wellbeing and performance.[45] Continuous assessment might, therefore, fulfil a specific need in legal education.

Essex Law School's MCQs programme

To accommodate the shift to online teaching and learning that the Covid-19 pandemic necessitated, Essex Law School designed two new "models" for teaching and learning on undergraduate modules (see Table 1).

Module directors could choose to use one of these teaching and learning models for their modules or an alternative to suit their module's pedagogical needs.[46] To complement the new teaching and learning models, the School devised a programme-level continuous assessment strategy involving weekly and fortnightly Moodle-based MCQs. These MCQs would be summatively assessed and the scores from each module's MCQs programme would represent 20% of each module's overall mark. Table 2 summarises this MCQs programme.

The School invited module directors to adopt either the relevant version of the MCQs programme or an alternative continuous assessment method not involving MCQs. With the exception of the School's final year research project module, all the School's

Table 1. Teaching and learning models (2020–21 and 2021–22 academic years).

Model 1 (each teaching week followed the same pattern)
Two 25-minute pre-recorded video lectures
Continuous assessment activity
50-minute small-group tutorial
Model 2
Two 25-minute pre-recorded video lectures and one 50-minute webinar each week
Fortnightly continuous assessment activity
Fortnightly 50-minute small-group tutorial

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[41]Harland and others (n 38) 538.
[42]Nicol (n 37) 54.
[43]Mezzanotte (n 30) 362; Trotter (n 31) 518; Hernández (n 38) 499.
[44]Hemming (n 30) 305.
[45]Holmes (n 3).
[46]The only credit-bearing modules that adopted alternative teaching and learning methods were experiential learning modules linked to the School's Law Clinic and modules linked to the School's final year research project.

Table 2. Model-specific versions of the MCQ programme.

	Model 1 (15-credit single term modules)	Model 2 (15-credit single term modules)	Model 2 (30-credit full-year modules)
Tutorials	10	5	9
Summatively assessed MCQs per module	9 (MCQ for tutorial 1 was a practice and did not count towards overall module mark)	4 (tutorial 1 was an ice-breaker with no pre-tutorial MCQ)	8 (tutorial 1 was an ice-breaker with no pre-tutorial MCQ)
Each MCQ opened	7 days before the weekly tutorial	7 days before the fortnightly tutorial	
Deadline for each MCQ	11:59pm on the day before the weekly tutorial	11:59pm on the day before the fortnightly tutorial	
Randomly selected questions to be answered per MCQ	6	12	
Attempts allowed per question	2 (half marks awarded for correct answers at the second attempt)		
Duration of each MCQ	45 minutes	90 minutes	

compulsory credit-bearing law modules, four of the School's seven model 1 optional modules and 11 of the School's 12 model 2 optional modules adopted the relevant version of the MCQs programme.[47]

The School advised academic staff who adopted the MCQs programme that each MCQ in their modules should cover a topic to be discussed at the tutorial that would immediately follow that MCQ. The School then produced best practice guidance and arranged training sessions that advised academic staff how to prepare questions that would test a student's ability to apply legal rules, concepts and principles, analyse legal problems, or evaluate legal theories. This guidance advised academic staff that students should approach the MCQs as an open-book test and to prepare questions requiring in-depth application of knowledge rather than recall or memorisation of facts.[48] Students were given two attempts at each question in their MCQs, with half marks awarded for questions answered correctly at the second attempt.[49] After submitting each MCQ, students automatically received a score (marked out of 6 or 12 depending on the version of the MCQ programme) and pre-prepared formative feedback that gave all students the background information required to understand the correct answers or that directed students to resources for further study.

To ensure that students could quickly familiarise themselves with the MCQs programme, the School ensured that all MCQs were presented in the same way across module Moodle pages. Module Moodle pages contained links to documents summarising key components of the MCQs programme and answering frequently asked questions. The School encouraged module directors to create weekly guidance notes containing guided learning questions prompting students to watch videos, participate in webinars and read set texts more reflectively. The School also advised that these weekly guidance notes should remind students to complete their MCQs before their

[47]These figures exclude the School's four French law modules, which are compulsory modules for its LLB English and French Law Double Degree and which adopted different continuous assessment methods. These methods are not discussed here.

[48]Hemming (n 30) 291 explains one approach for formulating MCQs testing breadth and application of knowledge and analytical skills.

[49]Jordan highlights how learning benefits can derive from allowing students multiple attempts at a question, for decreasing credit at each attempt, to address gaps in their learning (Sally Jordan, "Assessment for Learning: Pushing the Boundaries of Computer-Based Assessment" (2009) 3 Practitioner Research in Higher Education 11, 12–13).

tutorials. The School held mid-term workshops for students on how to maximise the learning opportunities that the MCQs provided, which included peer-guided sessions where students shared their experiences of MCQs best practice. The School invited all undergraduate students to these workshops but specifically targeted students who had not participated or who had performed less well in their MCQs.

The School also anticipated that some students might participate in the MCQs programme without engaging fully in other learning activities by, for example, obtaining correct answers for an MCQ from students who had already completed their own version of that MCQ. In the 2020–21 academic year, the School sought to minimise this tendency by ensuring, first, that the question bank for each MCQ contained more questions than a student would answer and, second, that the questions in any given MCQ were drawn randomly from that question bank and presented in a random order with the possible answers randomly rearranged. In the 2021–22 academic year, the School further strengthened these mechanisms by encouraging module directors to add extra questions to question banks and by introducing an "honesty statement" whereby students would be unable to access an MCQ unless they confirmed that their answers would be their own work.

In the 2020–21 academic year, the School calculated a student's overall module MCQ mark from their mean score for all the module's summatively assessed MCQs. Consequently, the MCQs programme might have failed to provide a fair grading system if IT or personal issues prevented students from performing at their best in an MCQ. The School initially addressed this by eliminating affected MCQs from the calculation of a student's overall module mark if the student could show that their performance was affected by unforeseeable circumstances outside their control. However, this process generated significant workload challenges for the School's professional services team so, in the 2021–22 academic year, the School implemented a "best of" grading system so that students' lowest-scoring MCQs would automatically be excluded from the calculation of a module's overall mark. For model 1 modules, a module's MCQ mark was the mean of a student's seven highest scoring MCQs. For 15-credit and 30-credit model 2 modules, a module's MCQ mark was the mean of a student's three and six highest scoring MCQs respectively. Following this change, students could no longer apply for an individual MCQ to be excluded from the calculation of a module's overall mark, but they could apply for the entire MCQs component to be excluded if they could demonstrate that unforeseeable circumstances had adversely affected their performance in at least one-third of a module's MCQs.

Research methods

To generate data about the student experience of the MCQs programme, undergraduate students received a self-completion questionnaire towards the end of the spring term in the 2020–21 and 2021–22 academic years. Informed written consent procedures were followed throughout to advise students that the author would use anonymised data from the questionnaires in written publications and other research outputs. The questionnaires invited students to evaluate their perception of the effects of the MCQs programme on both their learning behaviours and their feelings about their learning experience. Most questions were "closed-ended" using a five-point Likert scale that presented respondents with a statement and invited them to indicate their level of

agreement.[50] The questionnaires also included three "open-ended questions" inviting respondents to provide more detailed information about their experiences and behaviours.

The author released the 2020–21 questionnaire to the School's whole undergraduate cohort and repeated the data gathering in the 2021–22 academic year. The longitudinal nature of the data gathering means that the 2021–22 questionnaire attracted some new and some repeat respondents and highlighted possible changes in student perceptions as the MCQs programme became more established and the respondents both undertook different modules and began to return to campus after Covid-19 lockdowns. Potential respondents received the questionnaires via a covering email that contained an individualised URL that they could use once to access and complete the questionnaire anonymously. The covering email explained the reasons for the research, why the respondents had been selected, and that responses would be automatically and immediately anonymised.

Three hundred and twenty-eight students (22.5%) completed the 2020–21 questionnaire (146 first years, 102 second years and 80 final years). One hundred and seventy-eight students (13.4%) completed the 2021–22 questionnaire (55 first years, 75 second years and 48 final years). One respondent to each questionnaire completed the questionnaires having skipped at least five questions. These questionnaires were discarded, along with questionnaires that respondents started but did not complete. Two respondents skipped a question in the 2020–21 questionnaire (respectively on revisiting learning materials after an MCQ and the relationship between MCQs and confidence in tutorials) and one respondent skipped a question in the 2021–22 questionnaire (on the usefulness of feedback in the MCQs). These non-responses were excluded from the dataset. These respondents' other responses are included.

Results and discussion

Student learning behaviours

The data suggests that most students felt that the MCQs programme prompted them to study more frequently and more effectively. Most respondents either strongly agreed or slightly agreed that they watched a module's relevant pre-recorded lectures (81.04% in 2020–21 and 78.53% in 2021–22) and webinars (85.02% in 2020–21 and 79.66% in 2021–22) before doing an MCQ. Respondents to the 2020–21 questionnaire, which surveyed students in the first year of the MCQs programme, also either strongly agreed or slightly agreed that they did more reading than they had done in the previous year because of the MCQs (71.67%). These findings match those reported in earlier research showing the likely contribution of continuous assessment to increased engagement with learning resources.[51] Moreover, while institutional module enrolment recordkeeping practices mean that it is impossible to state MCQ participation rates with precision, participation data from the Law School's MCQs programme indicates that overall engagement with the MCQs themselves was also good. In the 2020–21 academic year, approximately 83% of students enrolled at the end of the academic year on modules participating in the MCQs programme completed at least

[50]Tom Clark and others, *Bryman's Social Research Methods* (6th edn, Oxford University Press 2021) 151–52.
[51]Holmes (n 3).

three-quarters of the MCQs. In the 2021–22 academic year, approximately 77% completed at least three-quarters of the MCQs.

While overall participation in the MCQs programme appears to have been good, SDT indicates that very few individuals are intrinsically motivated to participate in formal education activities. Instead, SDT suggests that individuals usually participate in these activities through some form of extrinsic motivation.[52] There is a possibility, therefore, that students might have felt coerced into doing more reading, watching more lectures and participating in the MCQs programme. To mitigate the risk that participants become alienated by or disengaged from an activity that they did not initiate spontaneously or willingly, SDT recommends measures that allow those participants to retain a sense of "choice" while doing the activity.[53] The School did this by allowing students to choose how to do the MCQs by giving generous time limits and allowing students to use a wide range of resources when answering questions. In addition, SDT suggests that an individual will be more likely to engage volitionally in an activity that they have not commenced spontaneously if they can grasp the personal importance of it.[54] Respondents to the 2020–21 questionnaire either strongly agreed or slightly agreed that they felt that regular MCQs helped them "stay on top of their studies" by comparison to previous academic years when the MCQs programme was not operating (75.69%). A significant majority of respondents to the 2021–22 questionnaire also strongly agreed or slightly agreed that participation in the MCQs programme helped them "stay on top of their studies" (81.36%). Responses to open-ended questions in the 2020–21 questionnaire confirmed that the prospect of regular MCQs led some respondents to re-read lecture notes and notes from readings before doing an MCQ in a way that was both somewhat autonomous and different from their behaviours before the School launched the MCQs programme. Other respondents to the 2020–21 questionnaire highlighted how MCQs prompted them to study regularly where previously they had sought to "cram" knowledge towards the end of a module. Most respondents to both questionnaires strongly agreed or slightly agreed that they reviewed required readings, re-read lecture notes or sought other learning resources to clarify their understanding if they got questions wrong in an MCQ (54.91% in 2020–21 and 54.24% in 2021–22). Responses to open-ended questions also revealed additional benefits from participation in the MCQs programme, with some respondents noting that regular MCQs prompted greater study planning and the development of study skills such as effective note-taking. Some respondents reported that they discussed complex issues with their peers to identify and address gaps in their knowledge before starting an MCQ, whereas others observed that they valued the opportunity to choose when and where to do the MCQs.

However, while most respondents (63.30% in 2020–21 and 58.19% in 2021–22) either strongly agreed or slightly agreed that they completed all relevant required readings before doing an MCQ, respondents prioritised lectures and webinars over readings (see Figure 1).

This suggests that some respondents may have felt that lecturers used the MCQs to test understanding, application or recall of rules, processes and concepts introduced in

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[52]Ryan and Deci (n 6).
[53]Edward L Deci and Richard M Ryan, "The 'What' and 'Why' of Goal Pursuits: Human Needs and the Self-Determination of Behavior" (2000) 11 Psychological Inquiry 227; Sheldon and Krieger (n 10) 884.
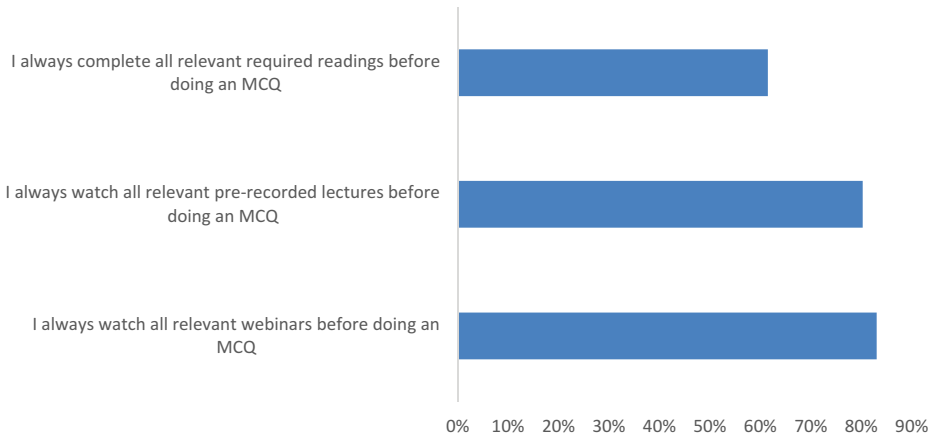[54]Ryan and Deci (n 6) 62.

Figure 1. Aggregated responses from 2020–21 and 2021–22 questionnaires to statements about participation in learning activities before doing an MCQ.

lectures and webinars rather than testing understanding of rules, processes and concepts examined in greater depth in required readings. Some respondents also highlighted this tendency in their responses to the open-ended questions and commented that they felt that this type of questioning did little to enhance their overall understanding. This is a risk inherent to the use of MCQs,[55] and it indicates that some students may have done their MCQs because they were summatively assessed rather than because they felt that the MCQs offered direct learning benefits.

Student understanding, confidence and enjoyment

Various studies have suggested that the absence of timely feedback can cause stress and anxiety for law students.[56] However, other research has highlighted that continuous assessment offers multiple opportunities for students to receive prompt and regular feedback on their learning throughout the learning process and before submitting coursework assignments.[57] A strong majority of respondents to the questionnaires about the Essex Law School MCQs programme either strongly disagreed or slightly disagreed with the statement that they "never read" the formative feedback provided after an MCQ (72.78% in 2020–21 and 67.23% in 2021–22). Most respondents also strongly agreed or slightly agreed that they found the feedback useful (78.59% in 2020–21 and 78.98% in 2021–22). The immediate nature of the feedback means that students' first experience of receiving feedback was thus likely to be positive.

Prior research into legal education emphasises the value of measures that allow students to make low-risk mistakes[58] so allowing students an automatic and immediate second attempt at incorrectly answered questions for half marks seems essential in enabling students to address and correct misconceptions in a relatively pressure-free

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[55]Whittaker and Olcay (n 3).
[56]Discussed in Sheldon and Krieger (n 1) 262 and Field and Meyer (n 2) 145.
[57]Allen (n 3); Holmes (n 3); Trotter (n 31); Nicol (n 37).
[58]Coyle and Gibbons-Jones (n 25).

environment.[59] The MCQs programme also appears to have fostered a greater sense of perceived understanding among respondents (68.50% in 2020–21 and 76.84% in 2021–22), and most respondents to the 2021–22 questionnaire either strongly agreed or slightly agreed that the MCQs had helped their performance in the previous year's coursework assignments and exams (57.38%). These findings are consistent with other research highlighting the potential benefits of MCQs and continuous assessment.[60] Responses to open-ended questions highlighted that some respondents valued the opportunity to practise the application of knowledge gained in lectures, webinars and required readings, whereas others noted how regular MCQs revealed gaps in knowledge and areas for improvement. Respondents either strongly agreed or slightly agreed that they were pleased with their MCQ marks, suggesting that their first experience of receiving a grade in each module was likely to be positive (73.70% in 2020–21 and 59.89% in 2021–22). It is notable that satisfaction with MCQs marks was higher among respondents to the 2020–21 questionnaire, perhaps reflecting a shift in expectations among the 2021–22 respondents following the launch of the MCQs programme in the previous academic year.

Perceptions about the effect of the MCQs programme on student preparedness for and performance in tutorials were positive. A strong majority of respondents either strongly agreed or slightly agreed that the MCQs programme helped them prepare for tutorials (67.58% in 2020–21 and 75.71% in 2021–22), whereas a smaller majority felt that the programme made them more confident in tutorials (59.20% in 2020–21 and 64.41% in 2021–22) and a narrower majority felt that regular MCQs helped them to answer questions in tutorials (52.29% in 2020–21 and 59.89% in 2021–22). These are important findings because classroom discussion and interaction can be particularly disorientating and discomforting for some law students.[61] Moreover, most respondents either strongly agreed or slightly agreed that the MCQs programme would help their performance in future coursework assignments and exams (64.53% in 2020–21 and 65.54% in 2021–22), suggesting that most students felt optimistic about the potential impact of the MCQs programme on their overall academic performance and had internalised the benefits of the MCQs. Responses related to interest and enjoyment indicated a similarly positive perception of the MCQs programme, although the proportion of responses either strongly agreeing or slightly agreeing that regular MCQs enhanced overall enjoyment (66.06% in 2020–21 and 65.54% in 2021–22) was significantly higher than the proportion strongly agreeing or slightly agreeing that the MCQs increased overall interest (58.10% in 2020–21 and 54.80% in 2021–22).

Challenges related to the MCQs programme

While these findings present positive data about the MCQs programme, the research did produce some less positive data. A small number of responses to the open-ended questions highlighted that some students had simply sought answers to MCQs from students who had already completed their own version of an MCQ despite the countermeasures introduced to reduce this behaviour. Other responses noted that the increased workload that the MCQs provoked and the risk of missing a summatively assessed MCQ could cause stress and anxiety.

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[59]Jordan (n 49) 12.
[60]Allen (n 3); Holmes (n 3); Mezzanotte (n 30); Trotter (n 31).
[61]Spencer (n 25).

This finding is consistent with research that suggests that frequent grading can be stressful for students[62] and emphasises the value of early identification of students struggling to participate or perform well in continuous assessment activities. However, while missing a graded continuous assessment activity might be a genuine cause of deeply felt stress and anxiety, there is evidence that frequent low-stakes testing can reduce overall student anxiety.[63] This highlights how it is important to address known causes of student anxiety by designing continuous assessment activities that do not penalise students if they are unable to participate in the activities for reasons outside their control. Nonetheless, there is scope for further study to investigate how students who reported feelings of stress and anxiety also felt about other aspects of the MCQs programme, including its capacity to help students understand learning materials and prepare for both tutorials and assessments.

Limitations

The nature of this research, which Essex Law School conducted with its own students, might have caused social desirability biases in the data (where respondents give answers that they perceive to be socially desirable).[64] For example, respondents might have overstated the amount of reading that they did before doing an MCQ. However, Clark and others explain that using anonymous self-completion questionnaires to ask sensitive questions has been shown to be more effective at limiting social desirability bias than alternative research methods such as face-to-face interviewing.[65]

While the questionnaires generated a significant number of responses, the findings reported here do not represent the experiences of the School's entire undergraduate cohort. However, to enable an evaluation of the representativeness of the data generated, the questionnaires asked respondents to report their overall year-end results. This results data may also be prone to social desirability bias but comparing it with the School's overall degree outcomes in the 2020–21 academic year suggests that the questionnaires did generate responses from students whose achievements were representative of the overall performance of the School's undergraduates, including from those achieving lower grades who might have been struggling most with motivation, perceived competence and enjoyment.

This paper does not provide a detailed examination of the longitudinal data gathered from respondents who completed both the 2020–21 and the 2021–22 questionnaires. Subsequent research might, therefore, examine how student learning behaviours changed during the MCQs programme. Alternatively, further work might focus on the impact of the introduction of the "honesty statement" in the 2021–22 academic year or on retention rates before and after the MCQs programme was launched.

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[62]Harland and others (n 38).
[63]Holmes (n 3) 9.
[64]Clark and others (n 50) 207.
[65]ibid 212–13.

Conclusion

This research found that an MCQs programme implemented in Essex Law School had positive effects on perceived competence among undergraduate law students. Students participating in the MCQs programme also reported that it helped them to feel more in control of their learning experience and better equipped to make positive choices about that experience. In addition, the MCQs programme promoted feelings of relatedness among those students by providing opportunities for peer interaction and more confident participation in learning activities such as small-group tutorials. These findings are consistent with other research into continuous assessment activities in higher education. The findings also show how continuous assessment might offer a means to address long-standing motivation, engagement and wellbeing deficits among law students. The MCQs programme discussed here is thus an example of a continuous assessment strategy that might be implemented effectively at a programme-level rather than in a piecemeal way on a module-by-module basis. It is clear that any strategy of this type must enable an element of student "choice" and ensure that assessment tasks across modules are coordinated and conducted consistently to encourage positive learning outcomes for students.

Ethical approval

The University of Essex's Ethics Committee approved the study (reference numbers ETH2021-0048 and ETH2122-0468). Informed written consent procedures were followed throughout.

ORCID

Edward Mitchell ⓘD http://orcid.org/0000-0002-0988-1911

Data availability statement

Due to the nature of this research, participants did not agree for their data to be shared publicly, so supporting data is not available.